

```

1
2
3 from a0_items import *
4
5 from fuzzywuzzy import fuzz
6
7
8 #https://www.datacamp.com/tutorial/fuzzy-string-python
9 # https://www.geeksforgeeks.org/fuzzywuzzy-python-library/
10
11 # string order matter
12 def FZ_ratio (str_1, str_2, to_lower_case):
13
14     if 'yes' in to_lower_case:
15
16         score_1 = fuzz.ratio(str_1.lower(),str_2.lower())
17
18         return score_1
19
20     else:
21
22         score_2 = fuzz.ratio(str_1,str_2)
23
24         return score_2
25
26
27 #print (FZ_ratio (str_1="my book", str_2="My BOOK", to_lower_case='yes'))
28
29
30
31
32 # Order matters for partial ratio
33 def FZ_partial_ratio (str_1, str_2, to_lower_case):
34
35     if 'yes' in to_lower_case:
36
37         score_1 = fuzz.partial_ratio(str_1.lower(),str_2.lower())
38
39         return score_1
40
41     else:
42
43         score_2 = fuzz.ratio(str_1,str_2)
44
45         return score_2
46
47
48 #print (FZ_partial_ratio (str_1="book", str_2="back", to_lower_case='yes') )
49
50
51
52 # similar strings but out of order. string similarity matter, order not matter.
53 def FZ_token_sort_ratio (str_1, str_2, to_lower_case):
54
55     if 'yes' in to_lower_case:
56
57         score_1 = fuzz.token_sort_ratio(str_1.lower(),str_2.lower())
58
59         return score_1
60
61     else:
62
63         score_2 = fuzz.ratio(str_1,str_2)
64
65         return score_2
66
67

```

```
68 #print (FZ_token_sort_ratio (str_1="book shane", str_2="shane book", to_lower_case) )
69
70
71
72
73 def FZ_token_set_ratio (str_1, str_2, to_lower_case):
74
75     if 'yes' in to_lower_case:
76
77         score_1 = fuzz.token_set_ratio(str_1.lower(),str_2.lower())
78
79         return score_1
80
81     else:
82
83         score_2 = fuzz.ratio(str_1,str_2)
84
85         return score_2
86
87
88 #print (FZ_token_set_ratio (str_1="book", str_2="back", to_lower_case ='no') )
89
90
91
92 #handles lower and upper cases
93 def FZ_WRatio (str_1,str_2, to_lower_case):
94
95     if 'yes' in to_lower_case:
96
97         score_1 = fuzz.WRatio(str_1.lower(),str_2.lower())
98
99         return score_1
100
101     else:
102
103         score_2 = fuzz.ratio(str_1,str_2)
104
105         return score_2
106
107
108 #print (FZ_WRatio (str_1="my book", str_2="My BOOK", to_lower_case) )
```